The Rise of Infographics: Why Teachers and Teacher Educators Should Take Heed

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I am an avid National Geographic reader and have been for over a decade. I have often used National Geographic in my classroom; the articles are great inspiration for research papers, and the photography offers students so many insights into places all over the world, but a few years ago, I noticed a new trend in the magazine. Articles were disappearing and, in their place appeared infographics; my latest issue has fourteen infographics in it. After digging deeper, I found this trend not just apparent in National Geographic, but in Time Magazine, USA Today, and especially in digital periodicals like The New York Times online as they have all seen a shift toward infographics.

All forms of media today use infographics broadly to cover informational and argumentative topics quickly in relatively limited spaces. Politicians emblazon their ads with quick and easy to read infographics about themselves and their opponents. Cell phone companies utilize infographics to share their data rates and speeds compared to other companies. My electricity bill came last month with a graphic house divided into the percentages of a typical homes energy use. Online infographics are even more widespread. Digital advertisements, memes, social media posts, online periodicals, advocacy websites all use infographics to make arguments and inform audiences online. Infographics clearly are a growing but sophisticated genre that both teachers and students must acknowledge as relevant in the 21st-century world.

Students as future citizens in a highly digital world need to be prepared to evaluate what they view online and across various mediums critically, and this includes infographics (McLaughlin & DeVoogd; Turner & Hicks; Beach & Myers). As a teacher educator and believer in critical literacies after noticing this trend I began to contemplate how I was preparing my preservice teachers for the realities of infographics. I wondered if in my methods courses I might be able to expose preservice teachers to this growing genre and challenge them to become both critical consumers of infographics. After having my preservice students reflect on their study and creation of an infographic several salient issues came to light.

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What Research Says about Infographics in the Classroom

I began my journey into implementing infographics in my preservice teacher preparation courses by looking into what research says about infographics in the secondary classroom and at the post-secondary level, especially in the training of teachers. Infographics and other visual literacies, I found, are essential to the teaching of both reading and writing (i.e., Moore and Redmond; Gilbert; Choo) in the 21st-century. Even in the early 2000s, research in infographics and education indicate infographics can be used in educational spaces as tools for improving comprehension, memory, and decision-making (Heer, Bostock, & Ogievetsky). The Institute for the Advancement of Research in Education at AEL noted in 2003 that infographics benefit students by (a) improving their comprehension of ideas and concepts, (b) enhancing students' abilities to organize ideas and think critically, and (c) improving student retention of information. Because infographics accomplish so much in classrooms, they have been found to be a "promising learning tool that can be adapted to any learning setting to enhance students' learning experience" (Islamoglu et al., 35). What is not clear though is how we might prepare preservice teachers to be critical consumers and careful creators of infographics so that they have those skills and can share them with students when they enter the classroom.

The research that does exist on the use of infographics in classrooms can be split into two distinct categories. They are divided by the two fundamental ways of utilizing infographics in the classroom: as instructor-created infographics (Mendenhall and Summers; Gallagher et al.) and as student-created infographics (Islamoglu et al.; Choo; Lindblom et al.). Both are relevant when we are discussing the preparation of teachers as they will need the skills first to create and utilize infographics in their classrooms, then to prepare students for the 21st-century world, they must support students in the creation of their own infographics.

What is the value of teachers creating infographics for classroom use?

Instructor-created infographics are not just limited to condensing information down, but are also rooted in visual learning theory, which has a long history of using multiple mediums such as text and images "to enhance learning and retention, and accommodate cognitive learning" (Gallagher et al., 131). A curriculum rich with visual texts encourages "visual thinking along with critical thinking [that] is especially relevant given the image-saturated, mass-mediated societies" that students live in today (Choo, 36). There are many great reasons why exposure to infographics and learning to read them effectively is an essential life skill for the 21st-century learner. One primary reason is that today, students must successfully navigate the web and use critical visual and digital literacy skills to

comprehend and evaluate the information they are exposed to on a daily basis (Lambert; Matrix & Hodson; Gilbert; McLaughlin & DeVoogd; Beach & Myers). Teachers who utilize infographics in their instruction offer students the skills necessary to critically evaluate visual and multimodal texts and help them become critical consumers and careful creators.

What is the value of students creating infographics?

When students create infographics, it encourages them to share informational texts in exciting and new ways that might be more comfortable than traditional and typically dry informational texts (Lindblom et al.). It encourages students to go beyond merely using text to create visually attractive infographics that engage and influence their audiences (Doering, Beach, & O'Brien). Turner and Hicks, in their recent book on how to use digital texts in classrooms to teach argument to adolescents, devote an entire chapter to infographics (62-83). They share how infographics force students to bring together the story, data, imagery, citation, and design to create meaningful and successful infographics (74-75). Hyler and Hicks, in an earlier book on using digital mediums in the high school ELA classroom, also capture the essential need for ELA teachers to utilize multimodal digital literacies in classrooms to enhance students' engagement and critical thinking, discussing infographics specifically (141-144). All of this research indicates that students, both at the secondary and post-secondary level, need to become creators of infographics to learn the multifaceted thinking and creating required in researching and carefully producing a relevant multimodal project.

What is the value of infographics in higher education and particularly in the preparation of teachers?

Infographics are an essential genre for new teachers to become competent in as they enter their classrooms full of 21st-century learners who need to know how to read and create this modern and growing genre (Islamoglu et al.; DeSchryver & Yadav; Doering, Beach, O'Brien). It is vital for preservice teachers to understand not just why infographics work but how they function to achieve their rhetorical purposes (Doering, Beach, & O'Brien; Matrix & Hodson). Lambert and Cuper caution, "Preparation of tomorrow's teachers does not depend solely on how well emerging technologies are incorporated into college coursework; instead, it rests on how well incoming teachers are taught to leverage the technologies to help their students develop… twenty-first-century skills" (265). It is not only important to help preservice teachers create infographics but also how to implement them successfully and in meaningful ways in their future classrooms (Lambert & Cuper; Doering, Beach, & O'Brien). If preservice teachers are to be prepared for the 21st-

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century learners in their ELA classes they must have access to infographics as a genre and understand their value in the classroom, but how do teacher educators create spaces in teacher preparation programs to do this work?
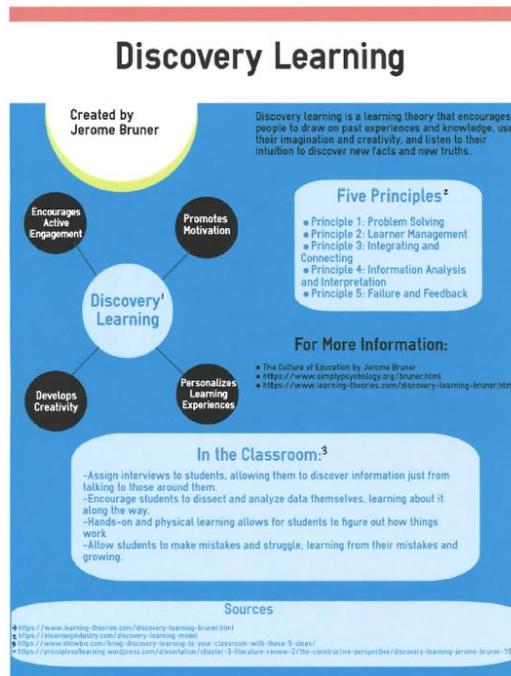
Ultimately, if we expect ELA teachers to use infographics in productive and thoughtful ways in their future classrooms, research suggests they need exposure to both reading and creating these unique texts (Choo; DeSchryver & Yadav; Doering, Beach, & O'Brien). They need to discover for themselves how infographics can help engage students in critical thinking (McLaughlin & DeVoogd; Beach & Myers) and other 21st-century skills like using visual mediums to make arguments (Turner & Hicks; Islamoglu et al.), and they need to learn how they might leverage infographics in the ELA classroom (Lambert & Cuper; Hyler & Hicks). Research concludes then that infographics are a new but relevant genre in our digital age and both teachers and students must develop the skills necessary to be both critical consumers and careful creators of this unique text. What remains to be seen is how we might successfully utilize infographics in the preparation of teachers so that they might take up this genre to experience being the consumer and creators but also contemplate how they might support their students in utilizing infographics as well.

Infographics Assignment

I taught secondary preservice ELA teachers at a large state university in the southwestern part of the United States for three years. In the fall of 2018 students in my methods in teaching writing course were all about to enter their student teaching, and they, not unlike other preservice teachers, were struggling to connect what they were learning in their education courses about learning theories to classroom pedagogy and practice (Korthagen et al.). Since my class was focused very squarely on classroom methods and practices, my students brought up concerns about how they could take, for example, critical pedagogy or discovery learning theory (see the student sample below) and actually use it in their teaching of reading, writing, speaking and listening. Often teacher preparation programs tend toward teaching theories and broader conceptions of school rather than practical pedagogical tools for teaching (Korthagen et al.). Theory remains relevant as preservice teachers utilize new learning theories to rethink their current views of teaching and learning, and it is vital to provide a more profound understanding of learning theories to help support preservice teachers' "conceptual change" (Korthagen, 89). Preservice teachers must not only learn about theories but think through how those theories can potentially provide the backdrop for their pedagogical choices.

I designed this infographic assignment to provide a space for students to research a learning theory and then contemplate how it might play out in their future

English classrooms. My goal was twofold: first, I wanted to challenge my students to bridge the gap between theory and practice after delving deeply in one particular learning theory, and second, I wanted them to demonstrate their findings in a vibrant and dynamic infographic. Below is an example of how one student took up discovery learning theory and distilled it down into what it does; it's five principles and what it might look like in the classroom. This example remains fairly text-heavy, but it incorporates simple shapes to break up the text into manageable chunks.

Discovery Learning

Created by Jerome Bruner

Discovery learning is a learning theory that encourages people to draw on past experiences and knowledge, use their imagination and creativity, and listen to their intuition to discover new facts and new truths.

- Encourages Active Engagement
- Promotes Motivation
- Develops Creativity
- Personalizes Learning Experiences

Discovery Learning

Five Principles[2]

- Principle 1: Problem Solving
- Principle 2: Learner Management
- Principle 3: Integrating and Connecting
- Principle 4: Information Analysis and Interpretation
- Principle 5: Failure and Feedback

For More Information:

- The Culture of Education by Jerome Bruner
- https://www.simplypsychology.org/bruner.html
- https://www.learning-theories.com/discovery-learning-bruner.html

In the Classroom:[3]

-Assign interviews to students, allowing them to discover information just from talking to those around them.
-Encourage students to dissect and analyze data themselves, learning about it along the way.
-Hands-on and physical learning allows for students to figure out how things work
-Allow students to make mistakes and struggle, learning from their mistakes and growing.

Sources

- https://www.learning-theories.com/discovery-learning-bruner.html
- https://elearningindustry.com/discovery-learning-model
- https://www.showbie.com/bring-discovery-learning-to-your-classroom-with-these-5-ideas/
- https://principlesoflearning.wordpress.com/dissertation/chapter-3-literature-review-2/the-constructive-perspective/discovery-learning-jerome-1956

Before even beginning, this assignment I asked students to read about genre studies (Lindblom et al.) and multi-genre literacy skills (LeNoir). The genre study piece lays out the importance of students being first consumers and identifying relevant aspects of good writing in order to produce successful writing within that genre. The multi-genre literacy piece highlights the importance of combining visual texts with written texts to complement and complicate the writing we ask students to do. Both pieces prepared my preservice teachers first to study the infographic genre and contemplate what it is that makes an infographic successful and then take their original research into a self-selected learning theory and use both visual and text literacy skills to create a productive infographic relating this research to their classmates. Below is the assignment prompt.

While theory perhaps does not feel like an essential part of teaching, it helps us formulate our ideas about teaching and learning, which in turn affects the choices we make as teachers. There are many theories out there about all kinds of things, but education has its own set of theories that dominate. So what do you believe about education? How do you think students learn best? What can teachers do to make learning better?

The answers to these questions invariably come from theories. For this assignment, you will study one particular theory well enough to teach us about it using an infographic. Infographics are a non-traditional way of teaching writing that will undoubtedly be relevant to the future lives of the 21st-century learner.

To complete this assignment:
• Select a theory you have previously studied or one that intrigues you.
• Research this theory and read a few pieces about it. (Be sure to cite these in your infographic)
• Create a visually appealing and informational infographic about that theory.
• Include: 1.) its origins, 2.) an explanation of the theory 3.) what it looks like in the classroom 4.) citations/footnotes
• Be ready to share your infographic with the class

After introducing the assignment, I let the students select theories that they were interested in or had heard of before. I supplied a list for those who might be unfamiliar with learning theories and fielded questions about what several of the theories involved. After self-selecting their theories, they set off to do their research on those theories and begin outlining their infographics. At our next class meeting, I provided a workshop detailing the online resources for making infographics (all of which are free unless you want to upgrade for more flexibility): Piktochart, Easel.ly, Venngage, Visual.ly, Infogr.am to name just a few. Other studies on using infographics also recommend using these online apps as they are user-friendly and make infographics accessible to students who have no experience with complicated software programs (Martix & Hodson 8; DeSchryver & Yadav 426).

We then spent time dissecting the infographic genre in small groups, trying to understand what common elements and techniques work best when producing an infographic (Lindblom et al.). From this genre study of infographics, they began making rhetorical and design decisions about their own infographics. They created in class "how-to" booklets with their groups, to keep track of all the details involved in producing an excellent infographic. Students then each selected one of the online resources and began drafting their infographics.

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Through a peer review session in class, students were able to pinpoint several focus areas and improvements for their drafts. Like other research into the implementation of infographics in the classroom, peer reviews provided valuable insight into the successes and failures of their work (Martix & Hodson; Turner & Hicks). My students also found having a run through of printing the infographics to ensure the sizing, font, and colors that made their texts readable, pivotal to their infographics success. Student's peer feedback went beyond editing, however, and gave suggestions about design and organizational elements. Through a peer's suggestions one student found that his content was there, but visually he needed to do some rearranging so that his reader could follow his line of thinking more readily.

> My peer feedback was very helpful and inspired me to add a more dynamic visual representation of the concepts I was elaborating on. Mostly, I just ended up moving around elements I already had to areas where they were better suited. Overall, I feel that it streamlined the representation of ideas I had on my infographic and addressed the areas of concern in my peer feedback quite well.

Without this critical adjustment, this student's infographic would have been more difficult for others to comprehend.

Below is one student's infographic that took shape based on the feedback she received from her peer's suggested revisions. She said, "After discussing with my peer writing community, I was able to make a few changes to my infographic such as adding more content that provided examples of how my theory is used in the classroom." From the feedback she received, this student added the example phrases that might happen in a classroom using the theory communities of practice.

Communities of Practice

Infographic by Jessica

Who?

Lave & Wenger coined the phrase (1991, 1998), though the phenomenon it refers to is age-old (1).

What?

Groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (2).

In the classroom: (1)

#1
Problem Solving

"Can we work on this design and brainstorm some ideas; I'm stuck."

#2
Requests for Information

"Where can I find the code to connect to the server?"

#3
Growing Confidence

"Before I do it, I'll run it through my community to see what they think."

#4
Mapping Knowledge & Identifying Gaps

"Who knows what, and what are we missing?"

Sources:

1) Wenger-Trayner, Etienne, and Beverly Wenger-Trayner. "Introduction to communities of practice: A brief overview of the concept and its uses." *Wenger-Trayner*, 15 April 2015.
2) David L, "Communities of Practice (Lave and Wenger)," in *Learning Theories*, July 16, 2014.
3) JTM. "Creating communities of practice: Visual maps by Nitya Wakhlu." *Experience Engagement*, 9 Oct. 2015.

Once students had their final products we shared the infographics using an inside-outside circle. Students printed enough infographics for each classmate, and

they shared their infographics with peers one on one, rotating after each presentation to share with another student. This provided space and time for their classmates to ask specific clarifying questions about each learning theory. Several students were surprised at how much they were able to retain from this process. One commented:

> Learning about my peers' learning theories through infographics allowed me to grasp and retain the concepts. Many theories were presented to me at once and having a concise visual explanation for each aided in my understanding of the projects and my ability to learn so many in a short period.

What students liked best was after class they walked away with 20 handy reference sheets on different learning theories and how they might apply them in their pedagogy.

The Value of Teaching Infographics to ELA Preservice Teachers

Students in the writing methods course learned a myriad of things from this assignment, but in particular, students pointed out through reflection that three significant understandings came to light throughout the process of researching their theories, studying the infographic genre, creating their own infographic, and presenting that work to the class. First, they realized how creative, complex, and audience-driven infographics could be. They noted how difficult it was to illustrate information in both a visual and text-based way. Second, they observed how teaching infographics addresses a variety of standards in both reading and writing, offering insight into how they might take up infographics in their future classrooms. Third, they recognized how infographics go beyond the standards because they are a real-world genre that they ought to teach in their future classes. Not only because they are pervasive in our culture but because they have the power to give voice to students in the digital spaces students are already engaged.

Infographics are Creative, Complex, and Audience Driven:

Most of my students enjoyed making the infographics, they saw them as a fun and creative way to express their research, one claiming, "Everyone is creative. Everyone wants to be artistic. Some kids get to scratch that itch of creating art through writing. Others can express their creative outlet through making pieces that are not only educational but fun as well! Who said learning can't be fun?" This preservice teacher realized that informational texts do not have to be drab, boring research reports or analyses; they can be actively engaging texts that draw readers in but still remain educational. Infographics require substantial research and

certainly can take the place of an essay. They involve content analysis similar to the essay and even more refined filtering skills compared to academic writing with the added element of including visuals to demonstrate the content (Martix & Hodson). Infographics are not just a fun alternative assignment; they enhance critical thinking even beyond what the traditional essay requires.

Several students noted this added layer of complexity, making them aware of their words, voice, and organization as always, but now they were thinking about fonts, colors, images, and spacing as well. Combined, these rhetorical and design decisions affect the success of their infographics and their ability to convey information quickly and precisely. Because infographics are multimodal, requiring both texts and images, they push students to think beyond what is necessary for the traditional academic essays. Writing in conventional classrooms tends to be mono-modal (Choo), and infographics provide a space for a multimodal text. Using multiple modalities adds a layer of sophistication that mono-modal genres do not; in mono-modal genres, writers do not have to consider how to make connections between the two modalities. Many layers of thinking go into creating a text that also employs visual storytelling. Infographics like the one below must consider these layers, and authors, when designing them, experience the complexity of the writing task. Several students noted that the structure of this particular infographic made the theory more readily accessible and found it to be the clearest depiction of a learning theory in an infographic.

Interpersonal Relationships in Education

A Theory by Hargreaves

Infographic by

Basis of Theory

Within education there are three types of teachers, each with their own unique way of handling a classroom. To be successful, teachers need to take a bit of each style and adapt it to their own classroom. It is important to recognize your own style and make it work for students.

Who is Hargreaves?

David Hargreaves is a British Educator who currently works at the University of Cambridge. His ideas on interpersonal relationships within education have spurred many to change their views on how to teach students.

Types of Teachers

LION TAMER
- Structured
- Disciplinarian
- Evaluator
- Formal
- Demands Attention
- Expects student to listen and behave properly

ENTERTAINER
- Values Fun
- Stimulating
- Uses Newest Technology
- Group Work
- Informal
- Student to give feedback and actively participate

NEW ROMANTIC
- Supporter
- Trusting
- Power and authority given to the students
- Positive
- Accepting of student growth and learning

Application in Classrooms

To be an effective teacher, all three types must be utilized in building our classroom culture. There need to be clear rules as a lion tamer, fun stimulating activities as an entertainer, and the supportive and positive atmosphere as a new romantic. If each type can be used, the classroom will be a wonderful place for both teacher and student.

"David Hargreaves." *Times Higher Education (THE)*, 27 May 2015, www.timeshighereducation.com/news/david-hargreaves/155318.article
Millwood, Richard. "Hargreaves' Teacher Types." *Creative Commons Attribution-Share Alike 2.0 License*. phd.richardmillwood.net/en/portfolio/media/Hargreaves Teacher
Steinberg, Carola. "Assessment as an 'Emotional Practice." *English Teaching Practice and Critique*, University of the Witwatersrand.r Types.pdf.

The benefit of this complexity is the engagement of the audience. "Infographics are especially inviting to visual learners as the text is often accompanied by charts or pictures" one student from my class pointed out. She went on to say, "Creating an infographic has taught me the value of a visual

component. Conveying information through concise points and images is a much more direct method of transferring knowledge, than say, an essay." She was surprised how essential audience awareness became in the creation of her infographic. Being aware of the needs of the reader can be difficult to demonstrate through traditional modes of writing, but when students create infographics, and their audience fails to understand them, they can quickly see that they have not met the needs of their audience. Audience awareness is a relevant lesson in writing that can be tricky to replicate in the classroom, but creating infographics provides a space where audience comprehension is critical to the writings success. The peer review session especially gave students insight into how they were meeting the needs of their audience and where they failed to convey the right message.

Infographics Address Multiple Standards:

Student very quickly through the process of studying the infographics realized how many different standards infographics addressed in both reading and writing. Visual literacies, which include infographics, expand students' concept of "text", something all current standards address as they adapt to the 21st-century digital world (Moore & Redmond). Most reading and writing standards today call for students to be able to read and write in a variety of contexts, structures, and modes. To read infographics they must analyze text structures, understand the purposes of a stylistic choice, and evaluate content presented in unique formats. To create infographics, students must engage in reading, researching, analyzing, and then creating a product to convey all they have learned from that work. Infographics in the classroom address a broad range of standards and media literacies that are at the core of Common Core and other similar standards because they strengthen the literate practices of 21st-century learners (Moore & Redmond, 10). Turner and Hicks concur and illustrate how a student-generated infographic reflects an understanding of declarative knowledge. Students through the genre study can name what elements are apparent in good infographics, but they also must have procedural knowledge to implement those elements in their own infographics (Turner & Hicks, 70-71). Ultimately this process teaches students to first be conscious consumers and then careful creators of infographics.

Not only can infographics address multiple standards, but they can also connect seemingly unrelated standards. Lindblom et al. point out "Common Core State Standards (CCSS) and similar standards now require students to learn more about nonfiction, particularly informational texts. This shift toward a balance between literary and informational texts is a new challenge for many of us" teachers (37). One of my preservice teachers saw how infographics might offer a space to connect the non-fiction and literary worlds: "I'm already thinking about lesson plans I have in my head where students can create infographics using vocabulary

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words or use them to summarize pieces of literature! You can use it anywhere!" Infographics bring informational and literary texts into dialogue. They compel students to "synthesize different kinds of textual information, engaging them in higher-order thinking, while working in a genre intended for real-world readers" (Lindblom et al., 37), precisely what current standards demand of 21st-century learners. Infographics offer a way to make connections between the reading of literary texts and their production of informational texts. Aligning these genres asks students to think critically and find connections between reading and writing as well as literary and non-fiction texts.

Preparing future teachers to teach writing means they must write themselves to experience what it feels like to be the creator before they can be the teacher and then the evaluator of their students' products. Preservice teachers can take up their knowledge of infographics to both create assignments that employ visual and multimodal texts, but they can also ask students to create infographics to express their learning. One student observed after doing this assignment:

> I honestly want to copy this lesson model for other projects in my own future classroom, such as observing themes or archetypes in literature. Infographics help students know the information well enough without having to write a whole paper on the subject. I also want to incorporate infographics into my classroom for procedures or school expectations.

She saw the power of infographics and was formulating ways she might implement them as assessments and as conveyors of information in her future classroom. My preservice students were beginning to notice that being both careful consumers and conscientious creators were two skills they ought to teach in their future classrooms. Standards alone, however, are not what define our goals in teaching or our rationale for assignments. Other justifications such as civic engagement and awareness and social relevance are also central in teacher's decision-making (Smagorinsky, Jakubiak, & Moore 2008; Pasternak et al.).

Infographics Are a Real World Genre:

Not only do infographics address multiple standards, but they are also a practical, real-world genre (Choo; Heer, Bostock & Ogievetsky; Islamoglu et al.) that is already a part of our digital worlds (Hyler & Hicks; Turner & Hicks). Islamoglu et al. clearly point out that "Pre-service teachers, as emerging professionals, have an important role concerning visual literacy in education. They are responsible for achieving competency in visual literacy, enriching their lessons with visuals, and promoting learners' visual literacy skill development" (33). Infographics do exactly these things. One student in my writing methods course reflected,

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> I believe that infographics are important to teach because much of the knowledge to be gained from the media today is presented in this form. The graphics are eye-catching and pique the interest of the audience. Being critically aware of this is important for students as the enter the real-world. Also, learning how to create an infographic gives the power of reaching a widespread audience, since they are so prevalent.

Preparing and creating their infographics made them much more aware of how pervasive infographics are in their worlds.

> After doing this project, I have consciously noticed how many infographics are used today. Outside of class, I currently work as a hairdresser, and we use infographics all the time; they cover everything from workplace ethics to color theory. Not only do I use it all the time, but also after sharing this assignment with my family I have had multiple family members tell me they hire contractors and others to create infographics for their companies or places of work, and it costs the business a ton of money! This is becoming a very lucrative literacy already. It is a literacy people should start learning to utilize more rather than learning how to write or read it by exposure.

Through their genre study of infographics, students realized it was a literacy skill they needed, but also one they ought to teach their future students. Being both consumer and creators of infographics is a 21st-century reality that just cannot be ignored.

> Another student saw infographics as a means of conveying multifaceted information to the world in a simple easy to understand way. Creating the infographic helped me better understand how having a simple, visual layout of information can make a topic more interesting to the reader and can help convey essential or complex information in a way that's easier to understand. Creating the infographic helped me narrow down the information about my theory into a concise yet fun way.

Her infographic below demonstrates how preservice teachers can use the real world genre of infographics to convey sophisticated theories. She uses numbers throughout to organize her thinking and flagging to denote key ideas and concepts. These visual alerts allow the audience to read the text more fluidly and begin to wrap their mind around the learning theory.

As literacy instructors, we must not only embrace infographics but teach students how to critique them as well. Practice with visual literacies allows students

to become critical consumers, and without those experiences, they might blindly consume visual texts and be manipulated by what they are exposed to on a daily basis (Freire; Gilbert; McLaughlin & DeVoogd). Teachers and teacher educators need to prepare future students, who are the consumers, how to read infographics deeply (Gilbert; Gallagher et al.; Choo; Heer, Bostock & Ogievetsky) and be careful creators themselves (Lindblom et al.; Islamoglu et al.; Hyler & Hicks; Turner & Hicks). Because as DeSchryver and Yadav point out "the pervasiveness of digital devices is quickly changing the K-12 landscape, where learners are moving from consumers to creators" (412).

Final Thoughts

Whether it is in a National Geographic magazine, political campaign flier, online advertisement, or an energy bill, infographics are here to stay. As one student of mine pointed out, "today infographics are just a part of business," which means we must take it seriously as we prepare future educators who will, in turn, educate their prospective students to be critical consumers and responsible creators of infographics in our world.

Initially, I created this assignment in response to student needs, but I quickly became aware of how vital it is to my pedagogical practice and the future practice of my preservice teachers. Embedding the teaching and use of infographics in a preservice writing methods course opened my preservice students' eyes to an emerging form of digital communication. Since visual literacies are becoming such an invaluable tool for the "digital age teacher" (Islamoglu et al., 33), it is crucial that teacher preparation programs implement them in methods courses, so that preservice teachers are gaining this vital tool important to both their own teaching success and student's success. For my students, infographics became an engaging way to address writing skills through a real-world genre. A genre that my students, researchers (Choo; Gilbert; Islamoglu et al.; Heer, Bostock, & Ogievetsky; Lindblom et al.; Mendenhall & Summers: Moore & Redmond), and I all believe need to be taught in classrooms today to better prepare students for the demands of digital spaces in our 21st-century world (Islamoglu et al.; Hyler & Hicks; Gilbert). Not only are infographics creative, complex, and audience driven, they appropriately address several standards and engage students in critical thinking essential to their ever-expanding digital worlds today. Infographics go beyond the traditional essay, but in a fun and engaging format that students will ultimately need experience with as they participate in the 21st-century world.

T/W

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